

Date: Wed, 22 Dec 93 11:05:34 PST  
From: Info-Hams Mailing List and Newsgroup <info-hams@ucsd.edu>  
Errors-To: Info-Hams-Errors@UCSD.Edu  
Reply-To: Info-Hams@UCSD.Edu  
Precedence: Bulk  
Subject: Info-Hams Digest V93 #1497  
To: Info-Hams

Info-Hams Digest                      Wed, 22 Dec 93                      Volume 93 : Issue 1497

Today's Topics:

                    ANS-345 BULLETINS  
                    ARLB116 Pick your call sign  
                    ARLK053  
                    Designations for microwave bands?  
                    Info sought on QUANTUM batt. packs  
                    Morse Code blues  
                    Need info on building IF-232 for Knwd TS-850S

Send Replies or notes for publication to: <Info-Hams@UCSD.Edu>  
Send subscription requests to: <Info-Hams-REQUEST@UCSD.Edu>  
Problems you can't solve otherwise to brian@ucsd.edu.

Archives of past issues of the Info-Hams Digest are available  
(by FTP only) from UCSD.Edu in directory "mailarchives/info-hams".

We trust that readers are intelligent enough to realize that all text  
herein consists of personal comments and does not represent the official  
policies or positions of any party. Your mileage may vary. So there.

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Date: Wed, 15 Dec 1993 12:20:08 GMT  
From: netcomsv!netcom.com!marcbg@decwrl.dec.com  
Subject: ANS-345 BULLETINS  
To: info-hams@ucsd.edu

From: Dave Cowdin <cowdin@pogo.den.mmc.com>  
Subject: ANS-345 BULLETINS  
Newsgroups: local.amsat  
Date: Sun, 12 Dec 1993 17:19:59 -0700 (MST)

SB SAT @ AMSAT    \$ANS-345.01  
AO-13 FACES LONG ECLIPSE PERIODS

HR AMSAT NEWS SERVICE BULLETIN 345.01 FROM AMSAT HQ  
SILVER SPRING, MD DECEMBER 11, 1993  
TO ALL RADIO AMATEURS BT

BID: \$ANS-345.01

A0-13 Experiences Long Solar Eclipse Which Affect Transponder Operations  
James Miller (G3RUH) of the A0-13 Command Team reports that because of the long duration of the solar eclipse periods that A0-13 is experiencing, they have been forced to severely curtail transponder operations. Some of the eclipse periods have been as long as 2 hours. Battery bus voltage has become so low that the net affect has been that there has been no battery charging from orbit to orbit. The safety threshold on the battery bus voltage is currently set 12.6 volts. When the bus voltage drops below 12.6 volts, the on-board computer shuts down the beacon and brings all the other subsystems on A0-13 to a "low-power" state. Currently, with the transponders and telemetry beacons turned-off, the total current consumption on A0-13 is around 1 ampere. In attempt to remedy this low battery voltage problem, the Command Team has made an spacecraft attitude re-adjustment to Bahn Longitude 245 degrees and a Bahn Latitude of -5 degrees. But under the current solar eclipse circumstances, even this has not been sufficient to solve the problem of low battery voltage. So it was necessary to take even further steps including turning off all transponder operations on A0-13 until between Friday December 10 and Monday December 13, 13-DEC-93 around 03:28 UTC. It is hoped that this will bring A0-13 through this difficult time period, however, there is no guarantee that the above actions will be enough. It should be noted that A0-13's batteries are now 5 years old and the Command Team feels that is may be necessary to take a close look at the battery charging software and presets to determine if they need to be adjusted for the age of the batteries.

It is requested that all A0-13 users keep a close "ear" to the telemetry beacons which can be heard on a downlink frequency 145.812 MHz or 2400.646 MHz for the latest information on the transponder schedule.

The Command Team is always interested in hearing from the user any "constructive feedback" about A0-13 transponder operations.

The A0-13 Command Team ccurrennetlu consists of the following:

Peter DB2OS @ DB0FAU  
James G3RUH @ GB7DDX  
Graham VK5AGR @ VK5WI

[The AMSAT News Service (ANS) would like to thank G3RUH for the information which went into this bulletin item.]

/EX

SB SAT @ AMSAT \$ANS-345.02  
IO-26 SUFFERS OBC CRASH

HR AMSAT NEWS SERVICE BULLETIN 345.02 FROM AMSAT HQ

SILVER SPRING, MD DECEMBER 11, 1993  
TO ALL RADIO AMATEURS BT  
BID: \$ANS-345.02

#### IK2OVV Explains the IO-26 On-Board-Computer (OBC) Crash

After 45 days of uninterrupted BBS service on IO-26, on 8-DEC-93 at approximately 11:30 UTC, ITAMSAT IO-26 suffered a crash during a pass over Europe. IO-26 is now in an undefined status, with its transmitter on but no MBL telemetry; the Command Team will try to regain control of the satellite in the next passes over Europe. The cause of the crash is still unclear; the Command Team is investigating on some new software used to access the BBS services. In the past, some other MICROSATs crashes were due to bugs found in the user software. ITAMSAT Command Team, while recommending users not to uplink to the satellite at this time, would like to receive reports about IO-26, especially regarding the presence of just the HDLC flags on the downlink or some sort of telemetry, either MBL or PHT style. However, after examining the memory dumps taken from IO-26, Alberto Zagni (I2KBD) and Harold Price (NK6K) have decided to begin the uploading of the high-level software to restore IHT (ITAMSAT Housekeeping Task) capability. The cause of the crash is still unknown; I2KBD and NK6K are working on the memory dumps, but the crash destroyed part of the internal logs kept by the high-level software. Since the crash happened as one of the Ground Command Stations in Milan was uplinking to the satellite using a new ground software (which has not yet been fully tested), there is chance that this was the cause of the crash. The ITAMSAT Command Team has decided not to turn the BBS on after the reloading of the software; the Team will start some Whole Orbit Data (WOD) collection in order to fully optimize the energy budget onboard the satellite. This will enable IO-26 to have higher power settings on the downlink. It is estimated that the high-level software will be working by this soon; stay tuned on the downlink for any news!

The ITAMSAT Command Team would like to thank again Harold Price (NK6K) for the great help in debugging the memory dumps and the Eyesat Command Team for helping during the initial recovery.

ITAMSAT Command Team can be reached via Internet as i2kbd@amsat.org or ik2ovv@amsat.org, and on Compuserve HAMNET.

73 de Luca Bertagnolio IK2OVV  
ITAMSAT Command Team

/EX  
SB SAT @ AMSAT \$ANS-345.03  
AMSAT OPS NET SCHEDULE

HR AMSAT NEWS SERVICE BULLETIN 345.03 FROM AMSAT HQ

SILVER SPRING, MD DECEMBER 11, 1993  
TO ALL RADIO AMATEURS BT  
BID: \$ANS-345.03

#### Current AMSAT Operations Net Schedule For AO-13

AMSAT Operations Nets are planned for the following times. Mode-B Nets are conducted on AO-13 on a downlink frequency of 145.950 MHz. If, at the start of the OPS Net, the frequency of 145.950 MHz is being used for a QSO, OPS Net enthusiasts are asked to move to the alternate frequency of 145.955 MHz.

Date	UTC	Mode	Phs	NCS	Alt NCS
3-Jan-94	0200	B	160	WA5ZIB	N7NQM

Any stations with information on current events would be most welcomed. Also, those interested in discussing technical issues or who have questions about any particular aspect of OSCAR statellite operations, are encouraged to join the OPS Nets. In the unlikely event that either the Net Control Station (NCS) or the alternate NCS do not call on frequency, any participant is invited to act as the NCS.

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#### Slow Scan Television on AO-13

SSTV sessions will be held on immediately after the OPS Nets a downlink on a Mode-B downlink frequency 145.960 MHz.

/EX

SB SAT @ AMSAT \$ANS-345.04  
WEEKLY OSCAR STATUS REPORTS

HR AMSAT NEWS SERVICE BULLETIN 345.04 FROM AMSAT HQ  
SILVER SPRING, MD DECEMBER 11, 1993  
TO ALL RADIO AMATEURS BT  
BID: \$ANS-345.04

#### Weekly OSCAR Status Reports: 11-DEC-93

##### AO-13: Current Transponder Operating Schedule:

L QST \*\*\* AO-13 TRANSPONDER SCHEDULE \*\*\* 1993 Nov 15-Jan 31  
Mode-B : MA 0 to MA 95 ! / Eclipses, max  
Mode-B : MA 95 to MA 180 ! OFF Dec 07 - 24. < duration 136  
Mode-B : MA 180 to MA 218 ! \ minutes.  
Mode-S : MA 218 to MA 220 !<- S beacon only  
Mode-S : MA 220 to MA 230 !<- S transponder; B trsp. is OFF

Mode-BS : MA 230 to MA 256 !           Blon/Blat 240/-5  
Omnis    : MA 250 to MA 150 !   Move to attitude 180/0, Jan 31  
[G3RUH/DB20S/VK5AGR]

F0-20: The following is the F0-20 operating schedule:  
Analog mode: 15-Dec-93 07:41 -to- 22-Dec-93 8:05 UTC  
Digital mode: otherwise noted above. [JJ1WTK]

IO-26: ITAMSAT suffered a system crash after 45 days of flawless operations. The command team is gathering data to try to determine the source of the problem. They state that the transmitter is on, but the BBS is not open.

A0-16: Operations are normal. [WH6I]

L0-19: Operations are normal. [WH6I]

K0-23: Functioning normally. There have been some questions regarding image files. When WH6I see some images on KITSAT, he tries to list them, but files on that satellite are only active for maybe 5-6 days depending on how much new material is uploaded. Therefore, by the time this status report makes it to the ANS status report, the files may be gone. Satellite image files on KITSAT have names in the form KAI?xxxx where ? is either W or N to indicate a WIDE or NARROW view image. The "xxxx" is a serial number. These files are about 350Kbytes large and can be seen in the directory in PB by hitting F4 to see the list of files generated by the satellite. They are usually in pairs with a wide and narrow view file. These files are downloaded just like any other file. The program DISPLAY which is often up on the birds will display these images, and it will display whatever there is in the xxxx.ACT file of the image, so that you can look at a partial download and decide if it is worth pursuing. [WH6I]

RS-10: After a period of inactivity, the RS-10 QSO robot is QRV again. The downlink is approx 29.403 MHz, and uplink is +/- 145.820 MHz. If you are "into" the robot receiver, your CW from the few KHz wide passband will be retransmitted on the robot's fixed frequency. The speed of your CW response is not important; it just needs to be steadily and cleanly sent. K0BJ notes that he just changed from a vertical dipole to a J-pole. It seems so far to be about as bad with QSB as the dipole, but the J-pole did seem to peak more in the longer, low-elevation parts of the pass. The next experiment K0BJ will perform is with a turnstile antenna.

POSAT: CT1ENQ would like to inform that the Portuguese satellite (POSAT) is now prepared for amateur radio use. Please contact Portuguese AMSAT group, AMSAT-PO, for more information.

The AMSAT NEWS Service (ANS) is looking for volunteers to contribute weekly OSCAR status reports. If you have a favorite OSCAR which you work on a regular basis and would like to contribute to this bulletin, please send your observations to WD0HHU at his CompuServe address of 70524,2272, on INTERNET at wd0hhu@amsat.org, or to his local packet BBS in the Denver, CO area, WD0HHU @ W0LJF.#NECO.CO.USA.NOAM. Also, if you find that the current set of orbital elements are not generating the correct AOS/LOS times at your QTH, PLEASE INCLUDE THAT INFORMATION AS WELL. The information you provide will be of value to all OSCAR enthusiasts.

/EX

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Marc Grant  
marcbg@netcom.com

-----  
Date: 15 Dec 1993 13:13:41 GMT  
From: news.acns.nwu.edu!math.ohio-state.edu!howland.reston.ans.net!gatech!  
destroyer!news1.oakland.edu!vela.acs.oakland.edu!prvalko@network.ucsd.edu  
Subject: ARLB116 Pick your call sign  
To: info-hams@ucsd.edu

!!! W H O A !!!

That will be COOL!!! Where do I send my check?

I call "dibs" on K8T you read it hear first!

73 =paul= WB8ZJL <===== to replace THAT call I oughta get a FREE one.

-----  
Date: Mon, 20 Dec 1993 12:22:14 -0700  
From: swrinde!elroy.jpl.nasa.gov!usc.edu!yeshua.marcam.com!zip.eecs.umich.edu!  
destroyer!nntp.cs.ubc.ca!cs.ubc.ca!alberta!nebulus!ve6mgs!usenet@network.ucsd.edu  
Subject: ARLK053  
To: info-hams@ucsd.edu

SB KEP @ ARL \$ARLK053  
ARLK053 Keplerian data

ZCZC SK65  
QST de W1AW  
Keplerian Bulletin 53 ARLK053  
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Date: 22 Dec 93 17:11:10 GMT  
From: ogicse!hp-cv!hp-pcd!hpcvsnz!tomb@network.ucsd.edu  
Subject: Designations for microwave bands?  
To: info-hams@ucsd.edu

Steven Davies (davies@mobira.nmp.nokia.com) wrote:

: Tom Bruhns (tomb@lsid.hp.com) wrote:

: > Sams' "Reference Data for Engineers" has such a list in the seventh edition  
: > on pg 1-4. For example, X band is 5.20GHz to 10.90GHz, K band is  
: > 10.9 to 36 (with Ku at 17.25). A footnote says C band includes Sz through  
: > Xy, or 3.90 to 6.20GHz.

: I'm a bit suprised at some of these you mention from Sams. I know there are  
: differences (see table I've just posted), but, for example, X-band, I've never  
: seen it referred to as 5.2 to 10.9GHz - the usual is 8 to 12GHz, or 8.2 to 12.4  
: GHz - always something centred on approx 10GHz - a band with a long history  
: of radar use. Similarly, K band 10.9 to 36, this is far to wide for a  
designation  
: of this type - it is no coincidence that many designations cover the operating  
: range of a standard (rectangular) waveguide size.

Well, though I don't work much at these frequencies, I was a bit surprised,  
too--but I should perhaps point out that each of these bands is divided in  
the table into many subbands. The bands give complete coverage from 225MHz  
to 100GHz, as listed. Common useage may take "X" to mean Xx at 9.6-10, or  
Xf at 10-10.25, or Xk at 10.25-10.9. There is a note in the text, "Letter  
designations commonly used ro microwave bands (particularly in references  
to radar equipment) are shown in Table 2. These designations have no  
official international standing, ant various engineers have used limits for  
the bands and subbands other than those listed in the table."

I should correct a mistake in my original posting on this: Ku is listed  
as 15.35-17.25.

Here is more of the table, but still without any of the subbands:

Band	GHz limits
.225	
P	
.390	
L	
1.55	
S	
5.20	
X	
10.90	
K	

36.0  
Q  
46.0  
V  
56.0  
W  
100

-----  
Date: 22 Dec 93 18:47:12 GMT  
From: news-mail-gateway@ucsd.edu  
Subject: Info sought on QUANTUM batt. packs  
To: info-hams@ucsd.edu

Matt Roberts N3GZM writes:

>How do you charge them? Do you need a special power supply or something?

An AC wall charger is supplied. Not certain if Quantum offers other charging options. My Quantum 2 pack (for my Vivitar 283) is still going strong after 5 years.

---  
Gary T. Lau, N6MMM | Internet: glau@ccmail.com  
Lotus Development Corporation |

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Date: 21 Dec 1993 15:28:15 -0800  
From: news.service.uci.edu!usc.edu!howland.reston.ans.net!cs.utexas.edu!asuvax!  
chnews!ornews.intel.com!ornews.intel.com!not-for-mail@network.ucsd.edu  
Subject: Morse Code blues  
To: info-hams@ucsd.edu

In article <2f7ujfINNdSr@nighthawk.ksu.ksu.edu> cbr600@nighthawk.ksu.ksu.edu  
(Jeremy Utley) writes:

>...Just had my first bad experience as a Tech plus licensee...  
>...Dropped down>to 15 meters, threw out the following:

>CQ CQ CQ DE N0YAX N0YAX N0YAX QRS K

>I put the QRS in there so hams would know I had trouble copying code and would  
>send slower. I did that about 3 times, and this guy comes back at about 18 wpm

Yeah, I used to have more than a few QSO's like that when I was a novice.  
The QRS doesn't usually work but try this; Send twice as slow as you can

receive. If you can receive 5 wpm then send at 2 wpm. This will give the right impression and they either won't bother with you at all or else will call you at 5 wpm which you can at least copy most of.

If they still won't slow down then just keep sending di-di-dum-dum-di-di PSE QRS ES RPT. Don't let them intimidate you. The Morris racers are in the Novice bands because there are no Novices in there anymore.

Got the Morris Code Blues  
No one answers my CQ's  
Maybe its the bug  
or else I'm sending like a slug.

--

zardo@ornews.intel.com WA7LDV

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Date: 15 Dec 93 18:27:29 GMT  
From: agate!howland.reston.ans.net!vixen.cso.uiuc.edu!uchinews!att-out!cbfsb!  
cbnews!wrb@ucbvax.berkeley.edu  
Subject: Need info on building IF-232 for Knwd TS-850S  
To: info-hams@ucsd.edu

In article <2en4qb\$nuc@usenet.INS.CWRU.Edu> rab@hal.cwru.edu (Roger A. Bielefeld) writes:

>My dad has a Kenwood TS-850S and is now interested in controlling  
>the rig from his new PC. Does anyone have any information that  
>would help him build the necessary interface? Kenwood sells an  
>IF-232 interface for close to \$200 that he'd like to avoid buying,  
>if possible. Any help appreciated!

>

>73, Roger AA8DV

>

>--

>Roger Bielefeld       Dept of Epidemiology and Biostatistics  
>Assistant Professor   Case Western Reserve University  
>rab@hal.cwru.edu       Cleveland, Ohio USA

I wrote an article that appeared in the Feb. '93 issue of QST that tells exactly what you want to know. You shouldn't have any problem finding that issue at a library, but if you do then let me know and maybe I can mail a copy to you.

I also offer kits/PC boards for the interfaces described in the article. I'M NOT TRYING TO SELL YOU ANYTHING - the parts are readily available and ARRL has the PCB layouts.

Looks like we must have upgraded at the same time (AA8DX).

--

Wally Blackburn      Clinton-Gore - Socialist Leadership  
wrb@ccsitn.att.com      for the 90s!  
Amateur Radio Station AA8DX      I'm the NRA.  
    \*More people have died in Ted Kennedy's car than from my gun!\*

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Date: Mon, 20 Dec 1993 22:25:38 GMT  
From: spool.mu.edu!caen!malgudi.oar.net!witch!ame!psl@uunet.uu.net  
To: info-hams@ucsd.edu

References <1993Dec12.095415.1@ccsua.ctstateu.edu>,  
<2efqou\$jna@msuinfo.cl.msu.edu>, <88@ame.win.net><2f3s2o\$2no@explorer.clark.net>  
Reply-To : psl@ame.win.net (Peter S. Loveall)  
Subject : Re: Info sought on QUANTUM batt. packs

Matt -

In article <2f3s2o\$2no@explorer.clark.net>, matt roberts (robocop@clark.net)  
writes:

>In article <88@ame.win.net>, Peter S. Loveall <psl@ame.win.net> wrote:

>

>>>I've not seen the Quantum HT batteries, but I have had very positive  
>>>experiences with the Quantum batteries for camera flashes. As I  
>>>recall, they were high capacity gel cells with charging circuitry etc.  
>>>built in to prevent overcharging. (A photographer friend of mine  
>>>leaves hers plugged in all the time). Hope this helps.

>

>>I use one for my TH-77A. It is three years old and still going  
>>strong. It is heavy, but great for portable use and those days  
>>when you will be helping with an event all day long. It also is  
>>nice to get the full 5 watts on high power (12v).  
>>The comment about the charging circuitry is correct. These are  
>>lead acid batteries and they use an excellent charging circuit on  
>>them.

>>

>How do you charge them? Do you need a special power supply or something?

>

>

Matt Roberts N3GZM

>

Nope. Just need a 110v wall socket. All of charging circuitry is  
built in to the battery case and an AC adapter comes with the  
battery.

73,

Pete, WB0FEW

-----  
Date: 22 Dec 93 16:39:08 GMT  
From: ogicse!uwm.edu!vixen.cso.uiuc.edu!newsrelay.iastate.edu!news.iastate.edu!  
wjturner@network.ucsd.edu  
To: info-hams@ucsd.edu

References <msanders-211293114849@msanders.sim.es.com>,  
<CIEH0B.2wB@news.iastate.edu>, <dbasinge-221293105457@ds9.hper.indiana.edu>  
Subject : Re: Where are all the young enthusiasts?

In article <dbasinge-221293105457@ds9.hper.indiana.edu>  
dbasinge@nickel.ucs.indiana.edu (Mike Basinger) writes:  
>In article <CIEH0B.2wB@news.iastate.edu>, wjturner@iastate.edu (William J  
>Turner) wrote:  
>  
>> They have been driven off by the non-stop bickering (other words fit fine here  
>> :-)) and the effort to make no-coders be second-class (or lower) citizens.  
>> They have quit going to meetings and checking into the nets because they have  
>> found it isn't worth listening to all the crap that is dished out to them for  
>> whatever reason.  
>  
>I'm currently studying on and off again for a tech no-code license in my  
>free time. I have had a couple local hams make me feel unwelcome to the  
>hobby since  
>I'm not learning CW yet.

I'm sorry about your experience, but just remember you are not alone. I've  
had the same feeling, even though my father and grandfather have both had  
their tickets for a \*long\* time. (1959 and 1933, respectively.) Hang in  
there, and do what you want. If you never learn CW, you are still a ham and a  
valued part of amateur radio, no matter what some OFs may say.

>Why should Hams be limited on what they can achieve, because they don't  
>want to learn CW. I would love to see the possibility of a General no-code  
>class.

I agree, and some day it will probably happen, but it will be a while. Some  
people just can't accept that CW is not as important as it once was, and  
requiring it for tests is becoming very arcaic. (Please excuse the  
spelling...)

>I do plan to start learn CW, if I enjoy the hobby (and if there is alot on  
>short-wave DXing). But, as of now I only plan to use 2m hand-held for my  
>amateur use, after I get my ticket (can't set up much more in my apartment  
>building)

Sounds good, and good luck on the tests!!

73, NORDV

```
--
Will Turner,  NORDV      -----
wjturner@iastate.edu    | "Are you going to have any professionalism, |
twp77@isuvax.iastate.edu | or am I going to have to beat it into you?" |
TURNERW@vaxld.ameslab.gov -----
```

```
-----

Date: (null)
From: (null)
SB KEP ARL ARLK053
ARLK053 Keplerian data
```

Thanks to NASA, AMSAT and N3FKV for the following Keplerian data.

Decode 2-line elsets with the following key:

```
1 AAAAAU 00 0 0 BBBB.BBBBBBBB .CCCCCCC 00000-0 00000-0 0 DDDZ
2 AAAAA EEE.EEEE FFF.FFFF GGGGGG HHH.HHHH III.IIII JJ.JJJJJJJKKKKKZ
KEY: A-CATALOGNUM B-EPOCHTIME C-DECAY D-ELSETNUM E-INCLINATION F-RAAN
G-ECCENTRICITY H-ARGPERIGEE I-MNANOM J-MNMOTION K-ORBITNUM Z-CHECKSUM
```

AO-10

```
1 14129U 83058 B 93329.34450477 0.00000009 10000-3 0 2132
2 14129 27.1217 354.5434 6014493 132.9243 298.0909 2.06477387 50611
```

RS-10/11

```
1 18129U 87054 A 93351.23346948 0.00000044 31419-4 0 8173
2 18129 82.9254 103.3386 0011695 163.5240 196.6301 13.72327961324950
```

UO-11

```
1 14781U 84021 B 93347.63778071 0.00000336 61040-4 0 6185
2 14781 97.7957 5.9733 0012132 138.7307 221.4801 14.69101502523065
```

RS-12/13

```
1 21089U 91007 A 93348.49534730 0.00000073 71177-4 0 6183
2 21089 82.9194 148.4132 0028050 263.3433 96.4670 13.74031986143289
```

AO-13

```
1 19216U 88051 B 93347.76722590 -.00000126 10000-4 0 8257
2 19216 57.9405 279.0991 7209579 330.4319 3.4139 2.09722294 10626
```

UO-14

```
1 20437U 90005 B 93349.67199115 0.00000087 41549-4 0 9189
2 20437 98.6030 71.8539 0011561 14.3284 345.8240 14.29810426203360
```

AO-16

```
1 20439U 90005 D 93348.68500703 0.00000071 35203-4 0 7181
2 20439 98.6114 71.9264 0011935 17.1705 342.9896 14.29866727203231
```

DO-17

1 20440U 90005 E 93349.21698811 0.00000085 40830-4 0 7188  
 2 20440 98.6116 72.7157 0011956 15.9664 344.1900 14.30004552203320  
 W0-18  
 1 20441U 90005 F 93348.69937128 0.00000062 31887-4 0 7195  
 2 20441 98.6116 72.2175 0012540 16.4110 343.7492 14.29981529203257  
 L0-19  
 1 20442U 90005 G 93349.24947759 0.00000055 29135-4 0 7183  
 2 20442 98.6118 72.9752 0012907 14.3827 345.7680 14.30074224203334  
 F0-20  
 1 20480U 90013 C 93348.51106707 0.00000001 29498-4 0 6141  
 2 20480 99.0150 170.4022 0541436 37.9788 325.8201 12.83222705180430  
 A0-21  
 1 21087U 91006 A 93350.83272836 0.00000093 82657-4 0 3765  
 2 21087 82.9452 277.6533 0033971 231.5378 128.2728 13.74530152144533  
 U0-22  
 1 21575U 91050 B 93347.69917846 0.00000129 50647-4 0 4184  
 2 21575 98.4537 60.7730 0008351 118.5223 241.6789 14.36873420126442  
 K0-23  
 1 22077U 92052 B 93350.91350573 -.00000037 10000-3 0 3155  
 2 22077 66.0895 301.6160 0006828 332.5169 27.5463 12.86282235 63346  
 Arsene  
 1 22654U 93031 B 93321.93138545 -.00000051 10000-3 0 2107  
 2 22654 1.4185 113.8817 2935300 161.0091 211.2000 1.42195961 2757  
 K0-25  
 1 22827U 93061 E 93344.55162447 0.00000178 80048-4 0 2797  
 2 22827 98.6664 57.0766 0009776 30.9343 329.2422 14.27799771 10766  
 I0-26  
 1 22826U 93061 D 93350.72421909 0.00000051 38494-4 0 2184  
 2 22826 98.6733 63.2187 0009926 27.0549 333.1147 14.27698493 11656  
 A0-27  
 1 22825U 93061 C 93350.73006276 0.00000047 36952-4 0 2171  
 2 22825 98.6737 63.2142 0009300 26.1080 334.0569 14.27595998 11650  
 P0-28  
 1 22829U 93061 G 93351.26816329 0.00000078 49281-4 0 2108  
 2 22829 98.6663 63.7567 0010651 12.2855 347.8583 14.27990937 11734  
 Mir  
 1 16609U 86017 A 93351.25309831 0.00007289 97866-4 0 330  
 2 16609 51.6188 19.7769 0005725 99.5487 260.6154 15.59089672447666

Keplerian bulletins are transmitted twice weekly from W1AW.  
 The next scheduled transmission of these data will be Tuesday,  
 December 21, 1993, at 2330z on Baudot and AMTOR.  
 NNNN  
 /EX

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Date: Mon, 20 Dec 93 19:47:29 GMT

From: ncrgw2.ncr.com!ncrhub2!torynews!kevin@uunet.uu.net  
To: info-hams@ucsd.edu

References <1993Dec17.040303.16513@mnemosyne.cs.du.edu>,  
<CI72Ip.7uF@srngenprp.sr.hp.com>, <2etdgm\$d03@mojo.eng.umd.edu>  
Subject : Re: Optimum call sign for CW/contests?

In article <2etdgm\$d03@mojo.eng.umd.edu> mebly@eng.umd.edu (Mark E. Bailey)  
writes:

>  
>I disagree with the ending in dit "problem." I never get KD4N. An E  
>anywhere is a problem though. And, personally, I dislike H.  
>  
>I got to use K4FR a few times for field days. That one sure sounded good!  
>

Some calls have such a distinctive sound in CW that you never forget them.  
A Japanese ham I talked to had the call JA7EU, and that's probably the  
coolest CW call I have heard. The best stateside call I've heard is  
K7EBW. Of course my own call ain't bad either ;- ) I think the best calls  
are those which could be put to music and be pleasant to hear that way.

--

Kevin Sanders, KN6FQ  
kevin.sanders@torreypinesca.ncr.com  
kevin%beacons@cyber.net

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End of Info-Hams Digest V93 #1497

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